

Event SSAS13-3-533

November 07, 2013

Participating Facility:

Sumitomo Metal Mining Co., Ltd

Pogo Mine c/o Lynden Transport
3001 Peger Road
Fairbanks, AK 99709 US
Phone: 907-895-2879

Thank you for participating in event SSAS13-3-533, September 27, 2013 to November 01, 2013. If you have any questions or comments about this study please contact me:



2931 Soldier Springs Rd.
Laramie, WY 82070 USA
1-307-742-5452
www.rt-corp.com

This report shall not be reproduced except in full, without written approval of the laboratory. The data and results reported in this document are the property of the participating laboratory and are confidential. If you wish to appeal an evaluation listed in this report please contact our QA Supervisor at 1(307) 742-5452 or RTCPTGroup@sial.com

Sincerely,

A handwritten signature in black ink, appearing to read "JD", is written over a light blue rectangular background.

Jennifer Duhon
Proficiency Testing Coordinator

STATIONARY SOURCE AUDIT REPORT

Project ID: Fort Knox
Final Report

Dataset

SSAS Lab ID L0048

Regulatory Agency

Evaluations of this dataset will be sent to the agency(s) listed below using your laboratory's labcode listed above each regulatory agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode R0042

Alaska Dept. of Environmental Conservation (ADEC)

R0042 Robin Wagner
610 University Ave.
Fairbanks AK 99709
UNITED STATES

Stack Tester:

AECOM Technical Services

1601 Prospect Parkway
Fort Collins, CO 80525 US
Contact: **Doug Bopray**
Tester ID: **T0046**

Testing Laboratory:

Test America

880 Riverside Parkway
West Sacramento, CA 95605 US
Contact: Lisa Stafford - QA Scientist
Phone: (916) 374-4308
Tester ID: **L0048**

Method: EPA Method 26A (2000)

Method Number 10403200

	Result Units	Assigned Value	Accept. Window	Evaluation
Hydrogen chloride ^{1, 4} 1770 / PEA1941-20ML - Lot SSAS53312447 /Analysis Date: 10/29/13	37.5 mg/L <i>Evaluation Criteria - 8</i>	37.3	33.6 to 41.0	Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.05, d:0</i>

RTC is accredited to perform PT programs for the scope of accreditation to ISO/IEC 17043 under ACLASS certificate AP-1469.



Method: EPA Method 29 (CVAA) (2000)

Method Number 10403302

	Result Units	Assigned Value	Accept. Window	Evaluation
Mercury, Hg ^{1, 4} 1095 / PEA1947-1EA - Lot SSAS53312447 /Analysis Date: 10/16/13	6.01 ug/filter <i>Evaluation Criteria - 8</i>	6.10	4.57 to 7.63	Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.125, d:0</i>
Mercury, Hg ^{1, 4} 1095 / PEA1950-1EA - Lot SSAS53312447 /Analysis Date: 10/10/13	159 ng/ml <i>Evaluation Criteria - 8</i>	15.0	11.3 to 18.8	Not Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.125, d:0</i>

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Method: EPA Method 29 (ICP-MS) (2000)

Method Number 10403700

	Result Units	Assigned Value	Accept. Window	Evaluation
Cadmium, Cd ^{1,4} 1030 / PEA1945-1EA - Lot SSAS53312447 /Analysis Date: 10/17/13	86.8 ug/filter <i>Evaluation Criteria - 8</i>	90.6	72.5 to 109	Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.10, d:0</i>
Cadmium, Cd ^{1,4} 1030 / PEA1945-1EA - Lot SSAS53312447 /Analysis Date: 10/17/13	0.181 ug/ml <i>Evaluation Criteria - 8</i>	1.31	1.05 to 1.57	Not Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.10, d:0</i>
Lead, Pb ^{1,4} 1075 / PEA1945-1EA - Lot SSAS53312447 /Analysis Date: 10/17/13	73.9 ug/filter <i>Evaluation Criteria - 8</i>	71.2	57.0 to 85.4	Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.10, d:0</i>
Lead, Pb ^{1,4} 1075 / PEA1945-1EA - Lot SSAS53312447 /Analysis Date: 10/17/13	0.208 ug/ml <i>Evaluation Criteria - 8</i>	0.988	0.741 to 1.24	Not Acceptable <i>Evaluation Parameter - a:1, b:0, c:0.125, d:0</i>

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End of SSAS Lab ID L0048

Definitions and Interpretation of Statistical Analysis:

Assigned Value: Value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a given purpose. See ISO/IEC 17043 for additional information. In general the assigned value is the value used to assess proficiency and may or may not be the made to value (gravimetric value).

Accept. Window: The range of values that constitute acceptable performance for a laboratory participating in this PT study.

Evaluation Criteria:

1 - Regression Equation - Acceptance windows based on TNI adopted equation of proficiency value ± 3 proficiency standard deviations and check limits of proficiency value ± 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = $a * \text{gravimetric} + b$ and proficiency standard deviation = $c * \text{gravimetric} + d$.

2 - Study Robust Mean and c,d regression - Acceptance windows based on TNI adopted equation of proficiency value ± 3 proficiency standard deviations and check limits of proficiency value ± 2 proficiency standard deviations. Proficiency value and proficiency standard deviation calculated from robust study mean and variables c & d as proficiency value = robust mean and proficiency standard deviation = $c * \text{proficiency value} + d$.

3 - Fixed Limits - Acceptance windows based on span of gravimetric percentage from gravimetric as gravimetric \pm gravimetric * percentage.

4 - Adjustable Fixed Limits - Acceptance windows base on a span of gravimetric percentage from gravimetric as gravimetric \pm gravimetric * lowPercentage where gravimetric < break and gravimetric \pm gravimetric * highPercentage where gravimetric \geq break.

5 - Study Statistics - Acceptance windows based on a number of standard deviations span from the study mean as study mean \pm (deviations * standard deviation).

6 - Log Transform Statistics - Acceptance windows based on lognormal distributed data. Acceptance windows = $\text{mean}(\text{lognormal}) \pm \text{span} * \text{standard deviation}(\text{lognormal})$.

7 - Reserved

8 - Regression Equation 2SD - Acceptance windows based on EPA equation of proficiency value ± 2 proficiency standard deviations. Proficiency value and proficiency standard deviation are calculated from gravimetric variables a, b, c, & d as proficiency value = $a * \text{gravimetric} + b$ and proficiency standard deviation = $c * \text{gravimetric} + d$. Generally reserved for drinking water studies.

Proficiency Test Item Preparation, Homogeneity and Stability Assessment - RTC uses proprietary and published methods for the manufacture, homogeneity and stability testing of proficiency test items. RTC's proficiency test materials meet requirements of ISO Guide 34. For more information contact RTC. Additionally RTC complies with TNI Volume 3 'General Requirements for Environmental Proficiency Test Providers', EL-V3-2009, 2009 for all TNI Fields of Proficiency Testing analytes.

Metrological Traceability - All preparations are made using balances calibrated annually traceable to NIST standards. Where appropriate analytical measurements are traceable through an unbroken chain to NIST standards, or a Certified Reference Material manufactured under ISO Guide 34 in conjunction with ISO/IEC 17025.

Statistical Analysis - RTC uses robust statistics to calculate study means and standard deviations - Reference - Kafadar, K, A *Biweight Approach to the One-Sample Problem*, Journal of the American Statistical Association, Vol. 77, No. 378, June, 1982, pp. 416-424.

Additional Information - Go to www.rt-corp.com/reporting for additional information on summary statistics for specific methods, advice on the interpretation of the statistical analysis, and additional comments/recommendations. If you failed an analyte it may be required to perform a corrective action and/or retest. RTC recommends that you contact your accreditation body for specific instruction.

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- ¹ NELAC Compliant, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert. AP-1469
- ⁴ ISO 17043 Accredited, covered by RTC's ACLASS Proficiency Testing Provider accreditation, Cert AP-1469

Authorizing Officer:
Patrick Brumfield, ASQ CQA
QA Manager



Date: 11/7/2013

